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The general distribution of *Orthoptera* in the main zoogeographical regions of North and Central Asia

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Abstract. The general distribution of orthopterans is described for the main zoogeographical regions inside the frontiers of the former USSR.

Key words: distribution, zoogeography, *Orthoptera*, Palaearctic, regionalization, diversity, endemism.

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The scheme of zoogeographical regionalization was proposed for North and Central Asia in earlier work (SERGEEV 1986, 1991, 1992, 1993). I analyzed orthopteran species ranges, compared the position of their boundaries in connection with the ecologic-geographical barriers and tried to classify different boundaries, barriers, and regions.

Now I can propose a division of the Palaearctic Region into the following regions (see also UVAROV 1921; EMELJANOV 1974) (Fig. 1). Most part of these subregions have been described before:

(I) the Eurosiberian Subregion – 2 provinces – about 70 species – a few of them endemics;

(II) the Scythian Subregion – at least 4 provinces – over 200 species – a few of them endemics (mainly montane ones);

(III) the Manchurian Subregion – at least 4 provinces – more than 150 species – many endemic genera and species;

(IV) the Orthrian Subregion – at least 4 provinces – more than 150 species – many endemic genera and species;

(V) the West-Mediterranean Subregion – at least 3 provinces – over 200 species – many endemic genera and species;

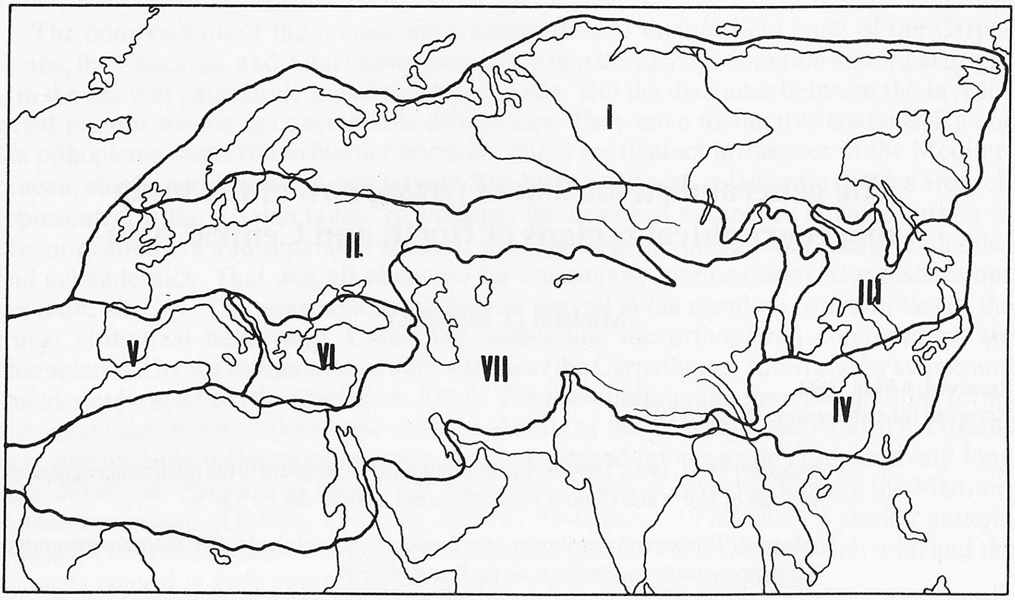


Fig. 1. Zoogeographical subregions of the Palaearctic Region (see text).

(VI) the East-Mediterranean Subregion – at least 4 provinces – over 200 species – many endemic genera and species;

(VII) the Saharan-Gobian Subregion – at least 22 provinces – more than 600 species – endemic tribes (*Diexini*, *Egnatiini*, *Iranellini*, *Uvaroviini* etc.), many endemic genera and species, especially in the local mountains.

Naturally, these subregions can be divided into provinces, subprovinces, districts etc. The pattern of detailed regionalization has been described previously for North and Middle Asia (mainly the regions inside the frontiers of the former USSR) (SERGEEV 1986, 1988, 1991). A scheme for the well-known European and Mediterranean areas may be worked out in the nearest future. The southern part of the Palaearctic Region should be investigated more closely. I think many new taxa will be found in this area, especially in the Orthrian Subregion.

The aim of this paper is to describe the orthopteran species distribution in the main zoogeographical regions of North and Middle Asia and to show the general peculiarities of taxonomic distribution.

The area under study may be divided into the following subregions and provinces (Fig. 2):

(1-2) the Eurosiberian Subregion:

(1) the Arctic Province,

(2) the Boreal Province;

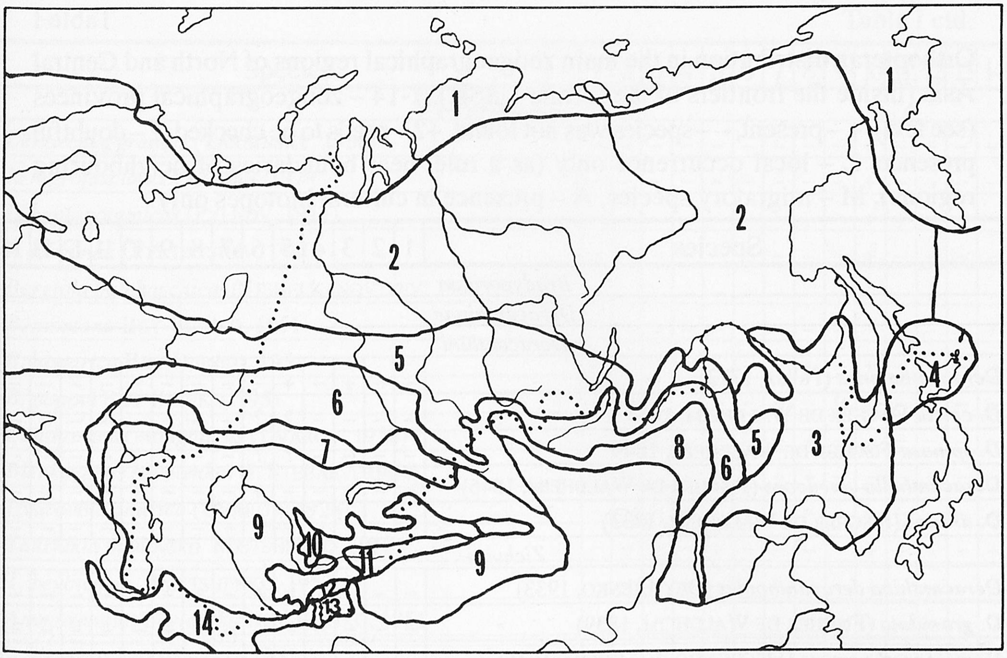


Fig. 2. Zoogeographical provinces of North and Central Asia (the Asian part of the former USSR) (see text).

(3-4) the Manchurian Subregion:
(3) the Amurian Province,
(4) the Sakhalin-Hokkaido Province;
(5-6) the Scythian Subregion:
(5) the Russian-Siberian Province,
(6) the Sarmathian Province;
(7-14) the Saharan-Gobian Subregion:
(7) the Kazakhstan Province,
(8) the Mongolian Province,
(9) the Turanian Province,
(10) the Gissar-Tien Shan Province,
(11) the Inner Tien Shan Province,
(12) the Subpamirian Province,
(13) the Pamirian Province,
(14) the Turkmeno-Iranian Province.

The taxonomic composition of each subregion or province is show in the table.

Table I

Orthopteran distribution in the main zoogeographical regions of North and Central Asia (inside the frontiers of the former USSR). 1-14 – zoogeographical provinces (see text). + – present, – – species was not found, +? – needs to be checked, ? – doubtful presence, L – local occurrence only (as a rule, near boundaries of neighbouring regions), M – migratory species, A – presence in cultural biotopes only.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bradyporidae														
Deracanthinae														
Deracanthini														
Deracantha onos (Pallas, 1772)	–	–	+	–	+	–	–	–	–	–	–	–	–	–
D. cincta FISCHER DE WALDHEIM, 1833	–	–	–	–	?	?	–	–	–	–	–	–	–	–
D. spinosa FISCHER DE WALDHEIM, 1849	–	–	–	–	?	?	–	–	–	–	–	–	–	–
Deracanthella verrucosa (FISCHER DE WALDHEIM, 1846)	–	–	–	–	–	+	–	–	–	–	–	–	–	–
D. aranea (FISCHER DE WALDHEIM, 1833)	–	–	–	–	–	+	–	–	–	–	–	–	–	–
Zichyini														
Deracanthina deracanthoides (BEY-BIENKO, 1933)	–	–	–	–	L	+	–	+	–	–	–	–	–	–
D. granulata (FISCHER DE WALDHEIM, 1839)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Damalacantha vacca (FISCHER DE WALDHEIM, 1846)	–	–	–	–	–	–	+	–	+	L	–	–	–	–
Zichya baranovi (BEY-BIENKO, 1933)	–	–	–	–	–	+	–	+	–	–	–	–	–	–
Tettigoniidae														
Phaneropterinae														
Phaneropterini														
Phaneroptera falcata (PODA, 1761)	–	–	+	–	+	+	+	–	+	+	–	–	–	–
Ph. sparsa STAL, 1857	–	–	–	–	–	–		–	L	–	–	–	–	–
Ph. gracilis BURMEISTER, 1838	–	–	–	–	–	–	+	–	+?	+	–	–	–	–
Tylopsini														
Tylopsis liliifolia (FABRICIUS, 1793)	–	–	–	–	–	–	–	–	L	–	–	–	–	–
Ducetiini														
Ducetia chinensis BRUNNER VON WATTENVYL, 1878	–	–	+	+	–	–	–	–	–	–	–	–	–	–
Elimaeini														
Elimaea fallax BEY-BIENKO, 1951	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Odonturini														
Isophya altaica BEY-BIENKO, 1926	–	–	–	–	+	+	–	–	–	–	–	–	–	–
Poecilimon intermedius (FIEBER, 1853)	–	L	–	–	+	+	+	–	–	+	–	–	–	–
P. stshelkanovtzevi TARBINSKY, 1932	–	–	–	–	–	–	–	–	–	–	–	–	–	+
Leptophyes albovittata KOLLAR, 1833	–	–	–	–	–	L	L	–	–	–	–	–	–	–
Saginae														
Saga pedo (PALLAS, 1771)	–	–	–	–	–	+	+	–	+	+	–	–	–	+
Tettigoniinae														
Tettigoniini														
Tettigonia viridissima LINNEUS, 1758	–	–	+	–	+	+	+	–	+	+	–	–	+	+
T. caudata (CHARPANTIER, 1845)	–	–	–	–	+	+	+	–	+	+	–	+	+	+
T. cantans (FUESSLY, 1775)	–	+	–	–	+	+	–	–	–	+	–	–	–	–
T. ussuriana UVAROV, 1939	–	–	+	–	–	–	–	–	–	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Drymadusini														
Lithoxenus grandis (TARBINSKY, 1930)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
L. nigrofasciatus PRAVDIN, 1979	–	–	–	–	–	–	–	–	–	+	–	–	–	–
L. heptapotamicus (PYLNOV, 1911)	–	–	–	–	–	–	–	–	–	+	+	–	–	–
L. miramae (VELTISTSHEV, 1940)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Bergiola balchaschica (STSHELKANOVTZEV, 1907)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
B. montana BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	–	–	+
B. hissarica BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
B. popovi BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	L	–	–	–	–	–
Eulithoxenus mongolicus (UVAROV, 1928)	–	–	–	–	–	L	–	+	–	–	–	–	–	–
Bienkoxenus beybienkoi (I. STEBAEV, 1964)	–	–	–	–	–	–	–	+	–	–	–	–	–	–
Uvarovina daurica (UVAROV, 1928)	–	–	–	–	–	+	–	–	–	–	–	–	–	–
Tadzhikia pavlovskii MISTSHENKO, 1952	–	–	–	–	–	–	–	–	–	+	–	–	–	–
T. beybienkoi MISTSHENKO, 1952	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ammoxenulus pavlovskii BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
A. desertus BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Ceraeocercus fuscipennis UVAROV, 1910	–	–	–	–	–	–	+	–	+	+	+	–	–	+
Iranusa khorasana UVAROV, 1942	–	–	–	–	–	–	–	–	+	–	–	–	–	+
Paradrymadusa bucharica PRAVDIN, 1969	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Drymadusella hissarica (MISTSHENKO, 1949)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Phytodrymadusa longipes (BRUNNER VON WATTENWYL, 1882)	–	–	–	–	–	–	–	–	L?	–	–	–	–	–
Ferganusa hemiptera UVAROV, 1939	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Calopterusa werneri (ADELUNG, 1910)	–	–	–	–	–	–	–	–	–	–	–	–	–	+
C. pamirica STOLYAROV, 1969	–	–	–	–	–	–	–	–	–	–	–	+	+	–
C. mistshenkoi SERGEEV ET POKIVAJLOV, 1992	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Atlanticus brunneri (PYLNOV, 1914)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Paratlanticus ussuriensis (UVAROV, 1926)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Anatlanticus uvarovi (MIRAM, 1940)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Gampsocleidini														
Gampsocleis glabra (HERBST, 1786)	–	–	–	–	+	+	+	–	+	+	+	–	–	–
G. sedakovii FISCHER DE WALDHEIM, 1846	–	+	+	+	+	+	–	+	–	–	–	–	–	–
G. ussuriensis ADELUNG, 1910	–	–	+	+	–	–	–	–	–	–	–	–	–	–
G. gratiosa BRUNNER VON WATTENWYL, 1888	–	–	+	–	–	–	–	–	–	–	–	–	–	–
G. shelkovnikovae ADELUNG, 1916	–	–	–	–	–	–	+	–	+	–	–	–	–	–
Uvarovites inflatus (UVAROV, 1924)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Decticini														
Decticus verrucivorus (LINNEUS, 1758)	L	+	+	–	+	+	+	+	+	+	+	–	–	+
D. albifrons (FABRICIUS, 1775)	–	–	–	–	–	–	+	–	+	+	–	+	–	+
D. nigrescens TARBINSKY, 1930	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Medecticus assimilis (FIEBER, 1853)	–	–	–	–	–	–	–	–	+	+	–	–	–	+

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Platycleidini														
Montana montana (KOLLAR, 1833)	–	+	–	–	+	+	–	–	–	–	–	–	–	–
M. eversmanni (KITTARY, 1849)	–	–	–	–	+	+	+	–	L	L	–	–	–	–
M. tianshanica (UVAROV, 1933)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
M. alexandra (UVAROV, 1927)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
M. striata (KITTARY, 1849)	–	–	–	–	+	+	–	–	–	–	–	–	–	–
M. tomini (PYLNOV, 1916)	–	L	–	–	+	+	–	+	–	–	–	–	–	–
M. medvedevi (MIRAM, 1927)	–	–	–	–	–	+	–	–	–	–	–	–	–	–
Semenoviana tamerlana (SAUSSUR, 1874)	–	–	–	–	–	–	–	–	+	+	–	–	+	+
S. similis (TARBINSKY, 1930)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
S. tadzhika (BEY-BIENKO, 1933)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
S. tricarinata (TARBINSKY, 1930)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
S. plotnikovi (UVAROV, 1914)	–	–	–	–	–	–	–	–	+	+	–	+	–	–
Platycleis intermedia (AUDINET SERVILLE, 1839)	–	+?	–	–	+	+	+	+	+	+	+	–	+	+
P. escalerai I. BOLIVAR, 1899	–	–	–	–	–	–	–	–	+	+	–	–	–	–
P. affinis FIEBER, 1853	–	–	–	–	–	–	+?	–	+	+	+	–	–	+
P. fatima UVAROV, 1912	–	–	–	–	–	–	L	–	+	+	+	+	+	+
P. pamirica RAMME, 1930	–	–	–	–	–	–	–	–	–	+	–	+	–	–
P. meridiana STOLYAROV, 1969	–	–	–	–	–	–	–	–	–	+	–	+	–	–
P. irinae SERGEEV & POKIVAJLOV, 1992	–	–	–	–	–	–	–	–	–	–	–	+	–	–
P. sogdiana MISTSHENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Squamiana squamiptera (UVAROV, 1912)	–	–	–	–	–	–	–	–	–	–	–	–	–	+
Alticolana alticola (TARBINSKY, 1930)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Pravdiniana mira SERGEV & POKIVAJLOV, 1992	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Decorana crassipes (BEY-BIENKO, 1951)	–	–	–	–	–	–	–	–	–	–	–	–	–	+
Tessellana vittata (CHARPENTIER, 1825)	–	–	–	–	–	+	+	–	+	+	+	+	–	+
T. tessellata (CHARPENTIER, 1825)	–	–	–	–	–	L	–	–	–	–	–	–	–	–
Metrioptera brachyptera (LINNEUS, 1761)	–	+	+	+	+	+	+	–	–	+	–	–	–	–
M. bonneti (I. BOLIVAR, 1890)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
M. engelhardti UVAROV, 1926	–	–	+	–	+	+	–	–	–	–	–	–	–	–
M. japonica I. BOLIVAR, 1890	–	L	–	+	–	–	–	–	–	–	–	–	–	–
Sphagniana ussuriana (UVAROV, 1926)	–	L	+	–	–	–	–	–	–	–	–	–	–	–
Eumetrioptera pavlovskyi MIRAM, 1935	–	–	–	–	–	–	–	–	–	+	–	–	–	–
E. crassa MISTSHENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
E. obuchovae MISTSHENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
E. monochroma BEY-BIENKO, 1941	–	–	–	–	–	–	–	–	–	+	–	–	–	–
E. mistshenkoi BEKUZIN, 1961	–	–	–	–	–	–	–	–	–	+	–	–	–	–
E. beybienkoi BEKUZIN, 1978	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Bicolorana bicolor (PHILIPPI, 1830)	–	+	+	–	+	+	+	+	–	+	+	–	–	–
Roeseliana roeselii (HAGENBACH, 1882)	–	+	+	–	+	+	–	–	–	–	–	–	–	–
R. fedtschenkoi (SAUSSURE, 1874)	–	–	–	–	–	+?	+	+?	+	+	+	–	–	–
Hypsopedes kurentzovi BEY-BIENKO, 1951	–	+	–	–	–	–	–	–	–	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ctenodecticini														
Miramiola pusilla (MIRAM, 1927)	–	–	–	–	–	+	+	–	–	–	–	–	–	–
Glyphonotinae														
Glyphonotus thoracicus (FISCHER DE WALDHEIM, 1864)	–	–	–	–	–	–	+	–	+	+	–	–	–	+
G. coniciplicus UVAROV, 1914	–	–	–	–	–	–	+	–	+	+	–	–	–	–
G. alajensis MIRAM, 1930	–	–	–	–	–	–	–	–	–	+	–	+	–	–
G. alactaga MIRAM, 1930	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Onconotinae														
Onconotus laxmanni (PALLAS, 1771)	–	–	–	–	+	+	–	–	–	–	–	–	–	–
O. servillei FISCHER DE WALDHEIM, 1846	–	–	–	–	–	+	–	–	–	–	–	–	–	–
Conocephalinae														
Conocephalini														
Conocephalus discolor THUNBERG, 1815	–	–	+	–	+	+	+	–	+	+	–	–	–	–
C. dorsalis (LATREILLE, 1804)	–	–	–	–	+	+	+	–	–	–	–	–	–	–
C. beybienkoi STOROZHENKO, 1981	–	–	+	–	+	+	–	–	–	–	–	–	–	–
C. chinensis (REDTENBACHER, 1891)	–	–	+	+	–	–	–	–	–	–	–	–	–	–
C. japonicus (REDTENBACHER, 1891)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
C. percaudatus BEY-BIENKO, 1955	–	–	+	–	–	–	–	–	–	–	–	–	–	–
C. buxtoni CHOPARD, 1922	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Copophorini														
Ruspolia nitidula (SCOPOLI, 1786)	–	–	+	–	–	–	+	–	+	–	–	–	–	–
Propholangopsidae														
Cyphoderrinae														
Paracyphoderris erebeus STOROZHENKO, 1980	–	+	–	–	–	–	–	–	–	–	–	–	–	–
Mimnermidae														
Lezininae														
Lezina mutica (BRUNNER VON WATTENWYL, 1899)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Rhaphidophoridae														
Aemodogryllinae														
Paratachycines boldyrevi (UVAROV, 1926)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. ussuriensis STOROZHENKO, 1991	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Diestrammena unicolor BRUNNER VON WATTENWYL, 1888	–	–	+	–	–	–	–	–	–	–	–	–	–	–
D. japanica BLATCHLEY, 1920	–	–	–	+	–	–	–	–	–	–	–	–	–	–
Gryllidae														
Gryllinae														
Gryllini														
Gryllus bimaculatus DE GEER, 1773	–	–	–	–	–	–	+	–	+	+	–	–	–	+
G. campestris LINNEUS, 1758	–	–	–	–	–	L	L	–	–	–	–	–	–	–
Acheta domestica (LINNEUS, 1758)	–	A?	A	–	A	A	A	–	A	–	–	–	–	–
A. turcomana GOROCHOV, 1978	–	–	–	–	–	–	–	–	+	–	–	–	–	L
Melanogryllus desertus (PALLAS, 1771)	–	–	–	–	–	+	+	–	+	+	+	+	+	–
Teleogryllus infernalis (SAUSSURE, 1877)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Tartarogryllus tartarus (SAUSSURE, 1874)	–	–	–	–	–	–	–	–	+	+	–	–	–	+
Modicogryllus frontalis (FIEBER, 1845)	–	–	–	–	–	+	+	+	+	+	–	+	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
M. pallipalpis (TARBINSKY, 1940)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. truncatus (TARBINSKY, 1940)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. bordigalensis (LATREILLE, 1804)	–	–	–	–	–	–	+	–	+	+	–	–	–	–
M. chivensis (TARBINSKY, 1930)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. bucharicus (BEY-BIENKO, 1933)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Gryllopsis ovtshinnikovi GOROCHOV et MISTSHENKO, 1991	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Nigrogryllus sibiricus (CHOPARD, 1925)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Gryllodinus kerkennensis (FINOT, 1893)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
G. odicus (UVAROV, 1911)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
G. abditus GOROCHOV, 1979	–	–	–	–	–	–	–	–	+	–	–	–	–	L
Turanogryllus lateralis (FIEBER, 1853)	–	–	–	–	–	–	–	–	+	+	–	–	–	L
Gryllodes supplicans (WALKER, 1869)	–	–	A	–	–	–	–	–	–	–	–	–	–	–
Loxoblemmus arietulus SAUSSURE, 1877	–	–	–	+	–	–	–	–	–	–	–	–	–	–
Velarifictorus micado (SAUSSURE, 1877)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
V. bolivari (UVAROV, 1912)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Cophaphonus riparius MISTSHENKO, 1949	–	–	–	–	–	–	–	–	+	–	–	–	–	–
C. zimini TARBINSKY, 1932	–	–	–	–	–	–	–	–	+	–	–	–	–	–
C. tshirkunae MISTSHENKO, 1949	–	–	–	–	–	–	–	–	+	–	–	–	–	–
C. privatus MISTSHENKO, 1949	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Gryllomorphini														
Gryllomorpha gestroana I. BOLIVAR, 1914	–	–	–	–	–	–	–	–	+	–	–	–	–	–
G. miramae S. MEDVEV, 1933	–	–	–	–	–	–	+	–	+	–	–	–	–	–
Nemobiinae														
Pteronemobiini														
Pteronemobius nitidus (I. BOLIVAR, 1901)	–	–	+	+	–	–	–	–	–	–	–	–	–	–
P. heydeni (FISCHER, 1853)	–	–	–	–	–	–	–	–	+	+	–	–	–	–
Stenonemobius gracilis (JAKOVLEV, 1871)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Dianemobius fascipes (WALKER, 1869)	–	–	+	+	+	+	–	–	–	–	–	–	–	–
D. furumagiensis (OHMACHI et FURUKAWA, 1929)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
D. csikii (BOLIVAR, 1910)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Polionemobius taprobanensis (WALKER, 1869)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Parapteronemobius sazanami FURUKAWA, 1970	–	–	–	+	–	–	–	–	–	–	–	–	–	–
Grylliscini														
Grylliscus gussakovskii TARBINSKY, 1930	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Oecanthinae														
Oecanthus longicaudus MATSUMURA, 1904	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Oe. pellucens (SCOPOLI, 1763)	–	–	–	–	–	+?	+	–	+	+	–	+	–	–
Oe. turanicus UVAROV, 1912	–	–	–	–	–	–	–	–	+	+	–	+	–	+
Myrmecophilidae														
Myrmecophilinae														
Myrmecophilini														
Myrmecophilus sapporensis MATSUMURA, 1904	–	–	–	+	–	–	–	–	–	–	–	–	–	–
M. oculatus MIRAM, 1930	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. crenatus GOROCHOV, 1986	–	–	–	–	–	–	–	–	+	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bothriophylacini														
Eremogryllodes semenovi (MIRAM, 1930)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
E. vlasovi (MIRAM, 1930)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Gryllotalpidae														
Gryllotalpini														
Gryllotalpa orientalis BURMEISTER, 1838	–	–	+	+	–	–	–	–	+	–	–	–	–	–
G. gryllotalpa (LINNEUS, 1758)	–	–	–	–	–	–	–	–	+?	L?	–	–	–	–
G. stepposa ZHANTIEV, 1991	–	–	–	–	–	–	–	–	+	?	–	–	–	+
G. unispina SAUSSURE, 1874	–	–	–	–	–	+	+	–	+	+	–	–	–	+
Tridactylidae														
Tridactylinae														
Xya variegata LATREILLE, 1809	–	–	–	–	+	+	+	–	+	+	–	–	–	–
X. japonica DE HAAN, 1942	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Tridactylus fasciatus GUERIN-MENEVILLE, 1844	–	–	–	–	–	–	–	–	+	+	–	+	+	–
Dentridactylinae														
Bruntridactylus tartarus (SAUSSURE, 1874)	–	–	–	–	+	+	+	–	+	+	+	+	+	–
Tetrigidae														
Tetriginae														
Tetrix subulata (LINNEUS, 1761)	–	+	+	–	+	+	+	+	+	+	–	–	–	–
T. bolivari SAULCY, 1901	–	–	–	–	–	–	–	–	+	L	–	–	–	–
T. fuliginosa (ZETTERSTEDT, 1828)	+	+	–	–	–	–	–	–	–	–	–	–	–	–
T. tartara (I. BOLIVAR, 1887)	–	–	–	–	–	+	+	+	+	+	+	+	+	+
T. simulans (BEY-BIENKO, 1929)	–	L	+	–	+	+	–	–	–	–	–	–	–	–
T. tenuicornis (SAHLBERG, 1891)	L	+	+	–	+	+	+	+	+	+	–	–	–	–
T. japonica (I. BOLIVAR, 1887)	–	L	+	+	+	+	–	–	–	–	–	–	–	–
T. bipunctata (LINNEUS, 1758)	+	+	+	+	+	+	–	–	–	–	–	–	–	–
Clinotettix ussuriensis BEY-BIENKO,1933	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Formosatettix robustus STOROZHENKO, 1981	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Paratettix uvarovi SEMENOV, 1915	–	–	–	–	–	–	–	–	+	+	–	+	+	–
P. hachijoensis SHIRAKI, 1906	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Dasyleurotettix depressus (BRISOUT, 1848)	–	–	–	–	–	–	–	–	+	–	–	–	–	+
Ergatettix dorsiferus (WALKER, 1871)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Eumastacidae														
Gomphomastacinae														
Clinomastax ninae (MISTSHENKO, 1937)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Phytomastax opaca (KRAUSS, 1898)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ph. artemisiana BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ph. elegans PRAVDIN, 1969	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ph. hissarica (BEY-BIENKO, 1947)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ph. robusta (BEY-BIENKO, 1936)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ph. sijazovi (UVAROV, 1914)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ph. marikovskji Sf. TARBINSKIJ, 1955	–	–	–	–	–	–	–	–	–	+	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ph. salebrosa STOLYAROV, 1969	–	–	–	–	–	–	–	–	–	–	–	–	+	–
Gomphomastax songorica BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
G. clavata (OSTROUMOFF, 1881)	–	–	–	–	–	–	–	–	–	+	+	–	–	–
G. pamirica BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	–	–	–	+	–
G. gussakovskii MISTSHENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
G. juniperi BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
G. shnitnikovi BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
G. dunaevae MISTSHENKO, 1937	–	–	–	–	–	–	–	–	–	+	–	–	–	–
G. gigantea MISTSHENKO, 1937	–	–	–	–	–	–	–	–	–	+	–	–	–	–
G. kughitangi BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Pamphagidae														
Thrinchinae														
Thrinchini														
Melanotmethis fuscipennis (REDTENBACHER, 1889)	–	–	–	–	–	–	–	–	L	–	–	–	–	+
Asiotmethis muricatus (PALLAS, 1771)	–	–	–	–	L	+	+	–	+	–	–	–	–	–
A. jubatus (UVAROV, 1926)	–	–	–	–	–	+	+	–	–	–	–	–	–	–
A. similis BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
A. heptapotamicus (ZUBOVSKY, 1898)	–	–	–	–	–	–	–	–	+	L	–	–	–	–
A. zacharjini (BEY-BIENKO, 1926)	–	–	–	–	–	–	+	–	–	–	–	–	–	–
Atrichotmethis semenovi (ZUBOVSKY, 1899)	–	–	–	–	–	–	–	–	+	L	–	–	–	+
Pezotmethis karatavicus (UVAROV, 1912)	–	–	–	–	–	–	–	–	L	+	–	–	–	–
P. tartarus (SAUSSURE, 1884)	–	–	–	–	–	–	–	–	+	+	–	–	–	–
P. ferghanensis (UVAROV, 1925)	–	–	–	–	–	–	–	–	L	+	–	–	–	–
P. nigrescens (PYLNOV, 1914)	–	–	–	–	–	–	–	–	L	+	–	–	–	–
Thrinchus campanulatus FISCHER DE WALDHEIM, 1833	–	–	–	–	–	–	–	–	+	–	–	–	–	–
T. schrenkii FISCHER DE WALDHEIM, 1846	–	–	–	–	–	–	–	–	+	–	–	–	–	–
T. turcmenus BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
T. aralensis BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
T. arenosus BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	+	–	–	–	–	–
T. tuberculosus TARBINSKY, 1926	–	–	–	–	–	–	–	–	+		–	–	–	–
T. desertus BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	+		–	–	–	–
Strumiger desertorum ZUBOBSKY, 1896	–	–	–	–	–	–	–	–	+		–	–	–	–
Haplotropini, nov.														
Haplotropis brunneriana SAUSSURE, 1888	–	–	+	–	+	+	–	–	–	–	–	–	–	–
Pamphaginae														
Pamphagini														
Saxetania cultricollis (SAUSSURE, 1887)	–	–	–	–	–	–	–	–	L	+	–	–	–	+
S. scutata MISTSHENKO, 1951 (bona sp. ?)	–	–	–	–	–	–	–	–	–	–	–	–	–	+
S. pravdini TSHERNJACHOVSKIJ, 1979	–	–	–	–	–	–	–	–	–	–	–	–	–	+

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Pyrgomorphidae														
Pyrgomorphini														
Pyrgomorpha bispinosa WALKER, 1870	–	–	–	–	–	–	+	–	+	+	–	–	–	+
Chrotogonini														
Chrotogonus turanicus KUTHY, 1905	–	–	–	–	–	–	+	–	+	+	+	+	–	–
Acrididae														
Catantopinae														
Uvaroviini														
Uvarovium desertum DIRSH, 1927	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Dericorythini														
Dericorys annulata (FIEBER, 1853)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. tibialis (PALLAS, 1773)	–	–	–	–	–	–	–	–	+	L	–	–	–	L
D. albidula AUDINET SERVILLE, 1839	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Egnatiini														
Egnatioides desertus UVAROV, 1926	–	–	–	–	–	–	L	–	+	–	–	–	–	–
Egnatius apicalis STAL, 1876	–	–	–	–	–	–	+	–	+	+	+	–	–	+
Ferganacris mushketovi SERGEEV et BUGROV, 1988	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Diexiini														
Bufonacridella sumakovi ADELUNG, 1910	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Diexis bucharicus MISTSHENKO, 1950	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. uvarovi TARBINSKY, 1932	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. varentzovi ZUBOVSKY, 1899	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. gussakovskyi MIRAM, 1949	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. bellus MISTSHENKO, 1950	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. chivensis UMNOV, 1931	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. ferghanensis UMNOV, 1931	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Iranellini														
Iranella eremiaphila UVAROV, 1922	–	–	–	–	–	–	–	–	L	–	–	–	–	+
I. turcmena BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	L	–	–	–	–	+
Oxyini														
Oxya chinensis (THUNBERG, 1815)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
O. maritima MISTSHENKO, 1951	–	L	+	–	–	–	–	–	–	–	–	–	–	–
O. fuscovittata (MARSCHALL, 1836)	–	–	–	–	–	–	–	–	+	+	–	–	–	–
Tropidopolini														
Tropidopola daurica UVAROV, 1926	–	–	–	–	–	?	–	–	–	–	–	–	–	–
T. turanica UVAROV, 1926	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Conophymatini														
Bienkoa fedtschenkoi (ZUBOVSKY, 1899)	–	–	–	–	–	–	–	–	–	+	–	+	+	–
Conophyma iliense MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. leve MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. almasyi (KUTHY, 1905)	–	–	–	–	–	–	–	–	–	+	+	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
C. nanum MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. przewalskii BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	+	+	–	–	–
C. mistshenkoi PROTZENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. comtulum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	+	–	–	–
C. latifrons NAUMOVICH, 1989	–	–	–	–	–	–	–	–	–	–	+	–	–	–
C. nigripes NAUMOVICH, 1989	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. shumakovi NAUMOVICH, 1989	–	–	–	–	–	–	–	–	–	–	+	–	–	–
C. transiliense NAUMOVICH, 1978	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. boldyrevi BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. semenovi ZUBOVSKY, 1898	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. jakovlevi BEY-BIENKO, 1936	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. zubovskyi UVAROV, 1925	–	–	–	–	–	–	–	–	–	+	–	+	+	–
C. ghilarovi TSHERNJACHOVSKIJ, 1985	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. montanum TSHERNJACHOVSKIJ, 1985	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. bogojavlenskii TARBINSKY, 1926	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. egregium MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. zachvatkini PRAVDIN, 1969	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. prasinum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. armatum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. badium MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. nigrescens MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. fuscum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. tumidum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	+	–	–
C. olsufjevi MISTSHENKO, 1937	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. dumale MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. petrosum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. laudanense MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. comatum MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. saxatile MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. argutum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	+	–	–
C. pylnovi UVAROV, 1925	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. xerophilum MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. validum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	+	–	–
C. plotnikovi UVAROV, 1925	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. berezhkovi BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. maracandicum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. simile ZUBOVSKY, 1899	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. geminum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	+	–	–
C. kusnezovi UMNOV, 1931	–	–	–	–	–	–	–	–	–	+	–	+	+	–
C. reinigi (RAMME, 1930)	–	–	–	–	–	–	–	–	–	–	–	–	+	–
C. uvarovi SEMENOV, 1915	–	–	–	–	–	–	–	–	–	–	–	–	–	+

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
C. sokolowi ZUBOVSKY, 1899	–	–	–	–	–	–	–	–	L	+	+	–	–	–
C. jacobsoni UVAROV, 1925	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. nitens MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. virgatum MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. dirshi BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. septuosum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. weberi ZUBOVSKY, 1899	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. alajensis MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. susinganicum MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. miramae UVAROV, 1925	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. ghilarovianum MYRZALIEV, 1988	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. seraphimi MYRZALIEV, 1988	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. formosum MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. speciosum MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. pavlovskii Sf. TARBINSKIJ, 1955	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. darvazicum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+?	–	+	–	–
C. mirabile MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. umnovi BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. zimini BEY-BIENKO, 1848	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. bactrianum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. tarbinskyi MIRAM, 1931	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. sogdianum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. narzykulovi CEJCHAN, 1964	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. spectabile SERGEEV, 1984	–	–	–	–	–	–	–	–	?	+	–	–	–	–
C. turkestanicum SERGEEV, 1984	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. turcomanum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	–	–	+
C. ikonnikovi UVAROV, 1925	–	–	–	–	–	–	–	–	–	+	–	+	–	–
C. stebaevi SERGEEV, 1986	–	–	–	–	–	–	–	–	–	+	–	–	–	–
C. excellens MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	+	–	–
C. lobulatum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	+	–	–
C. splendidum MISTSHENKO, 1950	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Tarbinskia kittaryi (TARBINSKY, 1931)	–	–	–	–	–	–	–	–	L	+	–	–	–	–
Plotnikovia lanigera UMNOV, 1930	–	–	–	–	–	–	–	–	–	L	–	+	+	–
Melanoplini														
Zubovskya mistshenkoi STOROZHENKO, 1980	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Z. koeppeni (ZUBOVSKY, 1900)	L	+	+	+	+	–	–	–	–	–	–	–	–	–
Z. mongolica STOROZHENKO, 1986	–	–	–	–	L	+	–	–	–	–	–	–	–	–
Anapodisma miramae DOVNAR-ZAPOLSKIJ, 1933	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Cophoprumna surda DOVNAR-ZAPOLSKIJ, 1933	–	–	–	–	+?	–	–	–	–	–	–	–	–	–
Primnoa polaris (MIRAM, 1928)	–	+	–	–	L	–	–	–	–	–	–	–	–	–
P. montana STOROZHENKO, 1991	–	+	–	–	–	–	–	–	–	–	–	–	–	–
P. insularis MISTSHENKO, 1974	–	–	+	–	–	–	–	–	–	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
P. kurentzovi MISTSHENKO, 1974	–	+	–	–	–	–	–	–	–	–	–	–	–	–
P. specialis MISTSHENKO, 1951	–	+	–	–	–	–	–	–	–	–	–	–	–	–
P. primnoides (IKONNIKOV, 1911)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. nana MISTSHENKO, 1974	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. robusta MISTSHENKO, 1951	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. assimilis MISTSHENKO, 1951	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. tristis MISTSHENKO, 1951	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. mistshenkoi STOROZHENKO, 1991	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. primnoa FISCHER DE WALDHEIM, 1849	–	+	+	+	+	+	–	–	–	–	–	–	–	–
P. silvicola MISTSHENKO, 1974	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. plicata MISTSHENKO, 1974	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. ussuriensis (TARBINSKY, 1930)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. exilis MISTSHENKO, 1951	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. litoralis (TARBINSKY, 1932)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Parapodisma mikado (I. BOLIVAR, 1890)	–	–	–	+	–	–	–	–	–	–	–	–	–	–
Miramella solitaria (IKONNIKOV, 1911)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Podisma pedestris (LINNEUS, 1758)	–	+	–	–	+	+	–	–	–	L	–	–	–	–
P. aberrans IKONNIKOV, 1911	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. sapporensis SHIRAKI, 1910	–	L	–	+	–	–	–	–	–	–	–	–	–	–
Melanoplus frigidus (BOHEMAN, 1846)	+	+	+	–	+	+	–	–	–	–	–	–	–	–
Ognevia sergii IKONNIKOV, 1911	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Eirenephilus longipennis (SHIRAKI, 1910)	–	–	+	+	+	+	L	–	–	–	–	–	–	–
Cyrthacanthacridini														
Anacridium aegiptium (LINNEUS, 1764)	–	–	–	–	–	–	–	–	+	+	–	–	–	+
Schistocerca gregaria FORSKAL, 1775	–	–	–	–	–	–	–	–	M	–	–	–	–	M
Calliptamini														
Calliptamus abbreviatus IKONNIKOV, 1913	–	–	+	–	+	+	L	+	–	–	–	–	–	–
C. turanicus TARBINSKY, 1930	–	–	–	–	–	–	L	–	+	+	–	–	–	+
C. italicus (LINNEUS, 1758)	–	–	–	–	L	+	+	–	+	+	+	+	+	+
C. barbarus (COSTA, 1836)	–	–	–	–	–	L	+	–	+	+	+	+	+	+
C. coelesyriensis (GIGLIO-TOS, 1893)	–	–	–	–	–	–	+	–	+	+	+	+	+	+
Sphodromerus luteipes UVAROV, 1943	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Eyprepocnemidini														
Heteracris pterosticha (FISCHER DE WALDHEIM, 1833)	–	–	–	–	–	–	–	–	+	+	–	–	–	L
H. adspersa (REDTANBACHER, 1889)	–	–	–	–	–	–	–	–	+	–	–	–	–	L
H. littoralis (RAMBUR, 1939)	–	–	–	–	–	–	–	–	+	–	–	–	–	L
H. theodori (UVAROV, 1929)	–	–	–	–	–	–	–	–	+	–	–	–	–	L
Eyprepocnemis plorans (CHARPENTIER, 1825)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
E. unicolor TARBINSKY, 1928	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Shirakiacris shirakii (I. BOLIVAR, 1914)	–	–	+	–	–	–	–	–	–	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Acridinae														
Acridini														
Acrida incallida MISTSHENKO, 1951	–	–	+	–	–	–	–	–	–	–	–	–	–	–
A. cinerea THUNBERG, 1815	–	–	–	+	–	–	–	–	–	–	–	–	–	–
A. oxycephala (PALLAS, 1771)	–	–	–	–	–	–	+	–	+	+	–	–	+	+
Truxalini														
Truxalis eximia (EICHWALD, 1830)	–	–	–	–	–	–	–	–	+	–	–	–	–	+
Ochrilidini														
Gonista sagitta (UVAROV, 1912)	–	–	–	–	–	–	–	–	+	L	–	–	–	L
Ochrilidia mistshenkoi (BEY-BIENKO, 1936)	–	–	–	–	–	–	–	–	+	+	–	–	–	–
O. turanica (BEY-BIENKO, 1936)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
O. hebetata (UVAROV, 1927)	–	–	–	–	–	–	–	–	+	+	–	–	–	–
Phlaeobini														
Duroniella brachyptera UMNOV, 1931	–	–	–	–	–	–	–	–	–	+	–	–	–	–
D. kalmyka (ADELUNG, 1906)	–	–	–	–	–	–	+	–	+	L	–	–	–	L
D. gracilis UVAROV, 1926	–	–	–	–	–	–	+	–	+	+	–	–	–	+
D. turcomana MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
D. sogdiana MISTSHENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Chrysochraontini														
Chrysochraon dispar (GERMAR, 1831)	–	+	+	+	+	+	–	–	–	+	–	–	–	–
Ch. amurensis MISTSHENKO, 1989	–	+	–	–	–	–	–	–	–	–	–	–	–	–
Euthystira brachyptera (OCSKAY, 1826)	–	+	+	+	+	+	+	–	–	+	+	–	–	–
Eu. japonica (I. BOLIVAR, 1898)	–	–	+	+	+	+	–	+	–	–	–	–	–	–
Podismopsis altaica ZUBOVSKY, 1900	–	–	–	–	+	+	L	–	–	–	–	–	–	–
P. gynaemorpha IKONNIKOV, 1911	–	–	+	–	–	–	–	–	–	–	–	–	–	–
P. genicularibus (SHIRAKI, 1910)	–	+	+	+	–	–	–	–	–	–	–	–	–	–
P. poppiusi (MIRAM, 1907)	L	+	–	–	+	L	–	–	–	–	–	–	–	–
P. jacuta MIRAM, 1928	–	+	–	–	L	–	–	–	–	–	–	–	–	–
P. ussuriensis IKONNIKOV, 1911	–	–	+	–	+	–	–	–	–	–	–	–	–	–
P. gelida MIRAM, 1931	L	+	–	–	–	–	–	–	–	–	–	–	–	–
P. insularis MISTSHENKO, 1951	–	+	–	–	–	–	–	–	–	–	–	–	–	–
P. silvestris STOROZHENKO, 1981	–	+	–	–	–	–	–	–	–	–	–	–	–	–
P. konakovi BEY-BIENKO, 1948	–	–	–	+	–	–	–	–	–	–	–	–	–	–
Hypernephiini														
Eclipophleps beybienkoi MALJKOVSKIJ, 1972	–	–	–	–	–	–	+	–	–	–	–	–	–	–
E. kazacha MALJKOVSKIJ, 1959	–	–	–	–	–	–	+	–	–	–	–	–	–	–
E. glacialis BEY-BIENKO, 1933	–	–	–	–	–	+	–	–	–	–	–	–	–	–
Saxetophilus petulans UMNOV, 1930	–	–	–	–	–	–	–	–	–	+	–	–	–	–
S. mistshenkoi NAUMOVICH, 1984	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Arcypterini														
Arcyptera fusca (PALLAS, 1773)	–	+	–	–	+	+	L	L	–	+	–	–	–	–
A. orientale STOROZHENKO, 1990	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Pararcyptera microptera (FISCHER DE WALDHEIM, 1833)	–	+	+	–	+	+	+	+	L	+	+	–	–	+

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ramburiella turcomana (FISCHER DE WALDHEIM, 1833)	–	–	–	–	–	–	–	–	+	+	+	+	–	+
R. foveolata TARBINSKY, 1931	–	–	–	–	–	–	–	–	+	+	–	–	+	+
R. bolivari (KUTHY, 1907)	–	–	–	–	–	–	–	–	+	+	+	+	–	+
Dociostaurini														
Dociostaurus maroccanus (THUNBERG, 1815)	–	–	–	–	–	–	–	–	+	+	–	–	–	+
D. brevicollis (EVERSMANN, 1848)	–	–	–	–	+	+	+	–	+	+	+	–	+	–
D. tartarus (STSHELKANOVTZEV, 1909)	–	–	–	–	–	–	+	–	+	+	+	+	+	+
D. plotnikovi UVAROV, 1921	–	–	–	–	–	–	–	–	+	L	–	–	–	L
D. kraussi (INGENENITZKY, 1897)	–	–	–	–	–	+	+	–	+	+	+	+	–	+
Notostaurus albicornis (EVERSMANN, 1848)	–	–	–	–	–	+	+	–	+	+	+	+	+	+
N. popovi MIRAM, 1935	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Kazakia tarbinskyi BEY-BIENKO, 1933	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Mizonocara uvarovi BEY-BIENKO, 1933	–	–	–	–	–	–	–	–	L	+	–	–	–	–
M. kusnezovae UMNOV, 1947	–	–	–	–	–	–	–	–	–	+	–	–	–	–
M. notata MISTSHENKO, 1947	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. robusta MISTSHENKO, 1947	–	–	–	–	–	–	–	–	–	+	–	–	–	–
M. inornata MISTSHENKO, 1947	–	–	–	–	–	–	–	–	–	–	–	–	–	+
M. deserti UVAROV, 1912	–	–	–	–	–	–	–	–	–	–	–	–	–	+
M. saksinae MISTSHENKO, 1987	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Eremippus persicus UVAROV, 1929	–	–	–	–	–	–	–	–	+	L	–	–	–	–
E. comatus MISTSHENKO, 1951	–	–	–	–	–	–	+	–	+	–	–	–	–	–
E. carinatus MISTSHENKO, 1951	–	–	–	–	–	–	L	–	+	–	–	–	–	–
E. mistshenkoi I. STEBAEV, 1965	–	–	–	–	–	–	+	+	–	–	?	–	–	–
E. simplex (EVERSMANN, 1859)	–	–	–	–	–	L	+	+	+	+	–	–	–	+
E. nudus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	–	+	–
E. miramae TARBINSKY, 1940	–	–	–	–	–	L	+	–	+	+	–	–	–	L
E. foveolatus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	+	–	–	–	–
E. beybienkoi MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
E. veltistshevi MIRAM, 1935	–	–	–	–	–	–	–	–	–	+	–	+	–	–
E. onerosus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	–	–	+
E. betpakdalensis SKOPIN, 1951	–	–	–	–	–	–	+	–	+	–	–	–	–	–
E. selevini SKOPIN, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
E. flavus MISTSHENKO, 1951	–	–	–	–	–	–	?	–	–	–	–	–	–	–
E. pusillus BEY-BIENKO, 1948	–	–	–	–	–	–	+	–	+	–	–	–	–	–
E. pilosus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
E. luppovae MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	–	+	–
E. hemipterus MALJKOVSKIJ, 1968	–	–	–	–	–	–	–	–	–	+	–	–	–	–
E. nanus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Gomphocerini														
Stenobothrus lineatus (PANZER, 1796)	–	+	+	–	+	+	+	–	–	+	–	–	–	–
S. olgaephilus STOROZHENKO, 1985	–	–	+	–	–	–	–	–	–	–	–	–	–	–
S. fischeri (EVERSMANN, 1848)	–	–	–	–	+	+	+	–	+	+	+	–	–	–
S. miramae DIRSH, 1931	–	–	–	–	–	+	+	–	–	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
S. nigromaculatus (HERICH-SCHAFFER, 1840)	–	L	–	–	+	+	+	–	–	+	+	–	–	–
S. kirgisorum IKONNIKOV, 1911	–	–	–	–	–	–	–	–	–	+	–	–	–	–
S. cobresianus BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
S. carbonarius (EVERSMANN, 1848)	–	–	–	–	–	+	+	+	+	+	–	–	–	–
S. newskii ZUBOVSKY, 1899	–	–	–	–	+	+	–	–	–	–	–	–	–	–
S. eurasius ZUBOVSKY, 1898	–	L	–	–	+	+	+	+	+	+	+	–	–	–
S. tadzhicus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Omocestus viridulus (LINNEUS, 1758)	–	+	+	+	+	+	+	+	–	+	+	–	–	–
O. heymonsi (RAMME, 1926)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
O. ventralis (ZETTERSTEDT, 1821)	–	?	?	–	?	?	?	–	?	–	–	–	–	–
O. haemorrhoidalis (CHARPENTIER, 1825)	–	+	+	–	+	+	+	+	+	+	+	+	–	–
O. petraeus (BRISOUT-BARNEVILLE, 1855)	–	–	–	–	+	+	+	–	+	L	–	–	–	–
Myrmeleotettix palpalis (ZUBOVSKY, 1899)	–	–	L	–	+	+	L	+	–	–	–	–	–	–
M. antennatus (FIEBER, 1853)	–	–	–	–	–	+	+	–	L	–	–	–	–	–
M. maculatus (THUNBERG, 1815)	–	–	–	–	+	+	–	–	–	–	–	–	–	–
M. pallidus (BRUNNER VON WATTENWYL, 1882)	–	–	–	–	+	+	+	–	+	–	–	–	–	–
Gomphocerus rufus (LINNEUS, 1758)	–	+	L	–	+	+	–	–	–	–	–	–	–	–
Aeropus kudia CAUDELL, 1927	–	+	+	–	–	–	–	–	–	–	–	–	–	–
Ae. sibiricus (LINNEUS, 1767)	+	+	L	–	+	+	+	–	–	+	+	+	+	–
Aeropedellus variegatus (FISCHER DE WALDHEIM, 1846)	+	+	–	–	+	+	–	–	–	–	–	–	–	–
Ae. reuteri (MIRAM, 1907)	–	–	–	–	+	–	–	–	–	–	–	–	–	–
Ae. baliolus MISTSHENKO, 1951	–	–	–	–	–	+	–	–	–	–	–	–	–	–
Ae. volgensis (PREDTETSHENSKY, 1928)	–	–	–	–	–	–	+	–	+	–	–	–	–	–
Dasyhippus barbipes (FISCHER DE WALDHEIM, 1846)	–	–	–	–	L	+	–	+	–	–	–	–	–	–
Mesasippus divergens (BEY-BIENKO, 1930)	–	–	–	–	–	–	+	–	–	–	–	–	–	–
M. geophilus (BEY-BIENKO, 1948)	–	–	–	–	–	–	+	–	–	–	–	–	–	–
M. tarbagataicus SERGEEV et BUGROV, 1988	–	–	–	–	–	–	+	–	–	–	–	–	–	–
M. fuscovittatus (TARBINSKY, 1927)	–	–	–	–	–	–	+	–	–	–	–	–	–	–
M. scitus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. ammophilus BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. barsukiensis MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
M. arenosus (BEY-BIENKO, 1930)	–	–	–	–	–	+	+	–	–	–	–	–	–	–
M. kozhevnikovi (TARBINSKY, 1925)	–	–	–	–	–	–	+	–	+	–	–	–	–	–
M. nudus (UMNOV, 1931)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Pezohippus callosus (UVAROOV, 1926)	–	–	–	–	–	–	–	–	+	L	–	–	–	–
Stauroderus scalaris (FISCHER DE WALDHEIM, 1846)	–	+	–	–	+	+	+	–	+	+	+	+	–	–
Megaulacobothrus aethalinus (ZUBOVSKY, 1899)	–	L	+	–	+	–	–	–	–	–	–	–	–	–
Glyptobothrus brunneus (THUNBERG, 1815)	–	?	?	–	?	?	?	–	?	?	–	–	–	?
G. miramae RAMME, 1939	–	–	–	–	–	L	–	–	–	–	–	–	–	–
G. biguttulus (LINNEUS, 1758), s. l.	L	+	+	+	+	+	+	+	+	+	+	+	+	+
G. mollis (CHARPENTIER, 1825)	–	–	–	–	+	+	+	–	–	+	–	–	–	+
G. dubius (ZUBOVSKY, 1898)	–	–	–	–	+	+	+	+	–	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
G. hemipterus UVAROV, 1926	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Chorthippus vagans (EVERSMANN, 1848)	–	–	–	–	–	+	+	–	–	+?	–	–	–	–
Ch. uvarovi (BEY-BIENKO, 1929)	–	–	–	–	–	–	+	–	–	–	–	–	–	–
Ch. pilipes BEY-BIENKO, 1933	–	–	–	–	–	–	+	–	–	–	–	–	–	–
Ch. apricarius (LINNEUS, 1758)	–	+	–	–	+	+	+	–	–	+	+	+	+	+
Ch. intermedius (BEY-BIENKO, 1926)	–	+	+	–	+	+	–	+	–	–	–	–	–	–
Ch. hammarstroemi (MIRAM, 1907)	–	+	+	–	+	+	–	+	–	–	–	–	–	–
Ch. macrocerus (FISCHER DE WALDHEIM, 1846)	–	–	–	–	–	+	+	–	+	–	–	–	–	+
Ch. saxatilis BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. ketmenicus BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. ingenitzkyi (ZUBOVSKY, 1898)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. kusnetzovi BEY-BIENKO, 1949	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. cavilosus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. similis UMNOV, 1930	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. tianschanicus UMNOV, 1930	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. oreophilus BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. monilicornis UMNOV, 1931	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. antennalis UMNOV, 1931	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. vicinus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	+	+	–	–
Ch. kirgizicus MISTSHENKO, 1979	–	–	–	–	–	–	–	–	–	–	+	–	–	–
Ch. shantariensis MISTSHENKO, 1951	–	+	–	–	–	–	–	–	–	–	–	–	–	–
Ch. robustus MISTSHENKO, 1979	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. ferghanensis UMNOV, 1931	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. karateghinicus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Ch. darvazicus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Ch. maracandicus MISTSHENKO, 1979	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. transalajicus MISTSHENKO, 1979	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Ch. zaitzevi MISTSHENKO, 1979	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Ch. badius MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. plotnikovi UMNOV, 1931	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. tadzhicus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	+	–	–
Ch. pavlovskii MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. jachontovi MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. jacobsoni (IKONNIKOV, 1911)	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. bucharicus BEY-BIENKO, 1948	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. curtus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. pascuus UMNOV, 1931	–	–	–	–	–	–	–	–	–	+	–	–	–	–
Ch. fallax (ZUBOVSKY, 1900)	–	+	+	+	+	+	–	+	–	–	–	–	–	–
Ch. parallelus (ZETTERSTEDT, 1821)	–	+	–	–	+	+	+	–	+	+	–	–	–	–
Ch. turanicus TARBINSKY, 1927	–	–	–	–	–	–	–	–	+	+	–	–	–	–
Ch. montanus (CHARPENTIER, 1825)	L	+	+	+	+	+	–	+	–	–	–	–	–	–
Ch. dorsatus (ZETTERSTEDT, 1821)	–	–	+	–	+	+	L?	–	–	–	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ch. dichrous (EVERSMANN, 1859)	–	–	–	–	–	+	+	+	+	+	–	+	–	–
Ch. karatavicus BEY-BIENKO, 1936	–	–	–	–	–	–	–	–	L	+	–	–	–	–
Ch. luminosus MISTSHENKO, 1951	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Ch. albomarginatus (DE GEER, 1773)	–	+	+	–	+	+	+	+	+	+	+	–	–	–
Ch. angulatus TARBINSKY, 1927	–	–	–	–	–	–	–	–	+	+	+	–	–	–
Ch. schmidti (IKONNIKOV, 1913)	–	–	+	–	+	+	–	–	–	–	–	–	–	–
Euchorthippus unicolor (IKONNIKOV, 1913)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Eu. pulvinatus (FISCHER DE WALDHEIM, 1846)	–	–	–	–	–	+	+	–	+	+	+	+	–	–
Eu. transcaucasicus TARBINSKY, 1930	–	–	–	–	–	–	–	–	–	–	–	–	–	+
Mecostethini														
Stethophyma grossum (LINNEUS, 1758)	L	+	+	–	+	+	–	+	–	–	–	–	–	–
S. tsherskii IKONNIKOV, 1911	–	+	+	+	+	+	–	–	–	–	–	–	–	–
Mecostethus alliaceus (GERMAR, 1817)	–	–	+	–	+	+	+	–	+	+	–	–	–	–
Epacromiini														
Epacromius pulverulentus (FISCHER DE WALDHEIM, 1846)	–	–	+	–	+	+	+	+	L	+	–	–	–	–
E. tergestinus (CHARPENTIER, 1815)	–	–	–	–	+	+	+	+	+	+	+	+	+	–
Aiolopus thalassinus (FABRICIUS, 1781)	–	–	?	–	–	+?	+	–	+	+	–	–	+	+
A. oxianus UVAROV, 1926	–	–	–	–	–	–	–	–	+	–	–	–	–	–
A. simulatrix (WALKER, 1870)	–	–	–	–	–	–	–	–	+	L	–	–	–	+
A. strepens (LATREILLE, 1804)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Hilethera turanica UVAROV, 1925	–	–	–	–	–	–	–	–	+	+	–	–	–	L
Locustini														
Locusta migratoria LINNEUS, 1758	–	–	+	+	M	+	+	–	+	+	–	–	+	L
Oedaleus infernalis SAUSSURE, 1884	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Oe. decorus (GERMAR, 1817)	–	–	–	–	+	+	+	+	+	+	+	+	+	+
Oe. senegalensis (KRAUSS, 1877)	–	–	–	–	–	–	–	–	+	+	–	–	–	–
Psophus stridulus (LINNEUS, 1758)	–	+	+	–	+	+	–	–	–	–	–	–	–	–
Pyrgodera armata FISCHER DE WALDHEIM, 1846	–	–	–	–	–	–	+	–	+	+	–	–	–	+
Brunnerella mirabilis SAUSSURE, 1888	–	–	–	–	–	–	–	–	–	–	–	–	–	+
Ptetica cristulata SAUSSURE, 1884	–	–	–	–	–	–	–	–	+	+	–	–	–	–
Oedipodini														
Celes variabilis (PALLAS, 1774)	–	L	–	–	+	+	+	–	+	+	+	–	–	–
C. skalozubovi ADELUNG, 1906	–	–	+	–	+	+	–	+	–	–	–	–	–	–
Mioscirtus wagneri (EVERSMANN, 1846)	–	–	–	–	–	–	+	–	+	+	–	–	–	L
Oedipoda juxartensis UVAROV, 1912	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Oe. himalayana UVAROV, 1925	–	–	–	–	–	–	–	–	–	–	–	–	+	–
Oe. fedtschenkoi SAUSSURE, 1884	–	–	–	–	–	–	–	–	–	+	–	+	+	–
Oe. caerulescens (Linneus, 1758)	–	–	–	–	A	+	+	–	+	+	+	–	–	–
Oe. miniata (PALLAS, 1771)	–	–	–	–	–	+	+	–	+	+	+	–	–	+
Trilophidiini														
Trilophidia annulata (THUNBERG, 1815)	–	–	+	–	–	–	–	–	–	–	–	–	–	–
Acrotylini														
Acrotylus insubricus (SCOPOLI, 1786)	–	–	–	–	–	–	+	–	+	+	–	–	–	–

Table I ctd.

Species	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Bryodemini														
Bryodema holdereri KRAUSS, 1901	–	L	–	–	+	+	–	+	–	–	–	–	–	–
B. tuberculatum (FABRICIUS, 1775)	–	+	+	–	+	+	L	–	–	–	–	–	–	–
B. zaisanicum BEY-BIENKO, 1930	–	–	–	–	–	–	+	–	–	–	–	–	–	–
B. orientale BEY-BIENKO, 1930	–	–	–	–	–	–	–	+	–	–	–	–	–	–
B. semenovi IKONNIKOV, 1911	–	–	–	–	–	–	–	–	–	+	–	–	–	–
B. gebleri (FISCHER DE WALDHEIM, 1836)	–	–	–	–	L	+	+	+	–	+	+	–	–	–
B. heptapotamicum BEY-BIENKO, 1930	–	–	–	–	–	–	–	–	–	+	–	–	–	–
B. luctuosum (STOLL, 1813)	–	–	–	–	+	+	–	–	–	–	–	–	–	–
Angaracris barabensis (PALLAS, 1773)	–	–	L	–	+	+	+	+	–	–	–	–	–	–
A. rhodopa (FISCHER DE WALDHEIM, 1836)	–	–	–	–	–	+	–	+	–	–	–	–	–	–
Compsorhipis davidiana (SAUSSURE, 1888)	–	–	–	–	–	–	–	+	–	–	–	–	–	–
Sphingonotini														
Pseudoceles persa (SAUSSURE, 1884)	–	–	–	–	–	–	–	–	–	–	–	–	–	+
Cophotylus decorus BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	–	–	–		+	–
Sphingonotus halophilus BEY-BIENKO, 1929	–	–	–	–	–	–	+	–	+	–	–	–	–	–
S. kirgizicus MISTSHENKO, 1936	–	–	–	–	–	–	–	–	–	+	+	+	–	–
S. pamiricus RAMME, 1930	–	–	–	–	–	–	–	–	–	+	–	–	+	–
S. zebra MISTSHENKO, 1936	–	–	–	–	–	–	–	–	–	+	–	–	–	–
S. miramae MISTSHENKO, 1936	–	–	–	–	–	–	–	–	+	–	–	–	–	–
S. turcmenus BEY-BIENKO, 1951	–	–	–	–	–	–	–	–	–	–	–	–	–	+
S. maculatus UVAROV, 1925	–	–	–	–	–	–	+	–	+	+	+	+	+	+
S. halocnemi UVAROV, 1925	–	–	–	–	–	–	–	–	+	L	–	–	–	–
S. rubescens (WALKER, 1870)	–	–	–	–	–	–	+	–	+	+	+	+	+	+
S. pilosus SAUSSURE, 1884	–	–	–	–	–	–	–	–	+	+?	–	–	–	+
S. elegans MISTSHENKO, 1936	–	–	–	–	–	–	–	–	+	+	+	+	+	+
S. lucidus MISTSHENKO, 1936	–	–	–	–	–	–	–	–	–	–	–	–	+	–
S. beybienkoi MISTSHENKO, 1936	–	–	–	–	–	–	+	+	+	–	–	–	–	–
S. caerulans (LINNEUS, 1767)	–	–	–	–	–	–	+	–	+	L	–	–	–	–
S. coerulipes (UVAROV, 1922)	–	–	–	–	–	L	+	–	+	+	–	–	–	–
S. eurasius MISTSHENKO, 1936	–	–	–	–	–	–	+	–	+	L	–	–	–	+
S. nebulosus (FISCHER DE WALDHEIM, 1846)	–	–	–	–	–	–	+	–	+	+	+	+	+	+
S. mongolicus SAUSSURE, 1888	–	–	+	–	+	+	–	–	–	–	–	–	–	–
S. octofasciatus (AUDINET SERVILLE, 1839)	–	–	–	–	–	–	–	–	+	+	–	–	+	+
S. obscuratus (WALKER, 1925)	–	–	–	–	–	–	–	–	+	L	–	–	–	L
S. satrapes SAUSSURE, 1884	–	–	–	–	–	–	–	–	+	L	–	–	–	L
S. salinus (PALLAS, 1773)	–	–	–	–	–	–	+	+	+	–	–	–	–	–
Pseudosphingonotus savignyi (SAUSSURE, 1884)	–	–	–	–	–	–	–	–	+	L	–	–	–	+
Sphingoderus carinatus (SAUSSURE, 1888)	–	–	–	–	–	–	L	–	+	L	–	–	–	+
Helioscirtus moseri SAUSSURE, 1884	–	–	–	–	–	–	–	–	+	–	–	–	–	L
Hyalorrhipis clausi (KITTARY, 1849)	–	–	–	–	–	–	+	–	+	–	–	–	–	–
H. turcmena UVAROV, 1926	–	–	–	–	–	–	–	–	+	–	–	–	–	–
Leptopternis gracilis (EVERSMANN, 1848)	–	–	–	–	–	–	–	–	+	–	–	–	–	–
L. iliensis UVAROV, 1925	–	–	–	–	–	–	–	–	+	–	–	–	–	–

The katydids of the subfamily *Deracanthinae* (*Bradyporidae*) are mainly Mongolian and Chinese species. Their numerous endemic genera and species are distributed throughout the north-eastern provinces of the Saharan-Gobian Subregion. As a rule, the *Deracanthini* occur in the northern parts of this area, and the *Zichyini* are connected with its southern parts. The *Phaneropterinae* are chiefly associated with subtropical and tropical regions. Some of them are found in the study area. Most short-winged *Odonturini* (especially *Isophya* and *Poecilimon*) may be characterized as endemic or subendemic. *Saga pedo* is the sole species of the *Saginae* in Palaearctic Asia.

The *Tettigoniinae* katydids are very various. Four species of the *Tettigoniini* proper are distributed mainly throughout the southern part of the forest zone, the forest-steppe and steppe zones. The *Drymadusini* include many species with small ranges. Some of them are endemic in different montane ridges. At the same time, many species are associated with arid areas or with nemoral regions of the Far East. The tribes *Gampsocleidini* and *Decticini* are widely distributed all over the Palearctic. They include some endemic species of the Manchurian Subregion. The distribution of *Platycleidini* is similar to that of the *Drymadusini* but the species of the former are as a rule, comparatively widely distributed. It is important that this tribe includes some forms which are connected with the forest-steppe and steppe zones (*Montana striata*, *M. tomini* etc.) or the forest one (*Roeseliana roeselii*). There are many montane endemics too. The only species of the *Ctenodecticini* occurs within the boundaries of steppes and semi-deserts.

The subfamily *Glyphonotinae* is endemic in the central part of the Saharan-Gobian Subregion. It consists of plain-montane and montane forms. The very specific subfamily *Onconotinae* spreads throughout the Sarmathian Province. Only *Hyphinomos* is supposed to be a Tibetan member of this group. The *Conocephalinae* katydids are chiefly connected with tropical regions. But some species of two tribes – *Conocephalini* and *Copiphorini* – are distributed in the southern part of the Palaearctic. As a rule, they do not penetrate into the Eurosiberian Subregion.

Three families of camel-crickets – *Prophalangopsidae*, *Mimnermidae*, and *Rhaphidophoridae* – include a few Palaearctic species. The sole species of *Paracyphoderris* occurs in the forest part of the Lower Amur Basin. *Lezina mutica* from the *Mimnermidae* does not penetrate from the south into the northern deserts. Some species of the *Rhaphidophoridae* are limited by the Manchurian Subregion.

In the area studied crickets from the family *Gryllidae* are mainly associated with the Manchurian (especially *Nemobiini*) and Saharan-Gobian (*Gryllini*) subregions. But they usually inhabit river and lake valleys. A few forms penetrate into the Scythian Subregion. The *Myrmecophilidae* and *Gryllotalpidae* comprise also some species of the Manchurian and Saharan-Gobian subregion. Their distribution is not well known.

Most of the Palaearctic *Tridactylidae* and *Tetrigidae* are connected with the forest and forest-steppe zones. The former are distributed in the southern part of the study area, and the latter penetrate into the tundra zone. But some species resemble the crickets in being widely distributed in river valleys of an arid area.

The *Gomphomastacinae* (*Eumastacidae*) are an endemic group in the mountains of Tien Shan, Pamiro-Allay, Nanshan, Karakoram, the Hindu-Kush and Himalayas. Most species live at closely localized sites, lying in a definite part of each ridge.

The grasshoppers proper (*Pamphagidae*, *Pyrgomorphidae*, and *Acrididae*) are the main group of the Palaearctic *Orthoptera*. But two species of the *Pyrgomorphidae* are distributed in Middle Asia. They do not penetrate through the northern boundaries of the semi-deserts.

The *Pamphagidae* include forms common to the arid plains and mountains of Middle Asia. There are many endemic genera and species, which may be connected with different types of deserts and semi-deserts (stone, clay, sand). Some species are distributed throughout the Sarmathian Province. The only endemic form in the Amur Basin and Manchuria is *Haplotropis brunneriana*. It is important that its relatives inhabit the Mediterranean area.

The family *Acrididae* comprises at least two subfamilies – *Catantopinae* and *Acridinae*. Some *Catantopinae* tribes are endemics in the Saharan-Gobian Subregion (*Uvaroviini*, *Dericorythini*, *Egnatiini*, *Diexini*, *Iranellini*). The *Conophymatini* grasshoppers live in the mountains of Middle Asia, including the mountains of Iran, Afghanistan, and the West Himalayas. They include many wingless endemics, which are chiefly associated with the outer ridges of these mountains. The Palaearctic *Podismini* (=*Melanoplini*) partly resemble their North American relatives. As a rule, they are short-winged herbicolous grasshoppers, but such forms may be more or less widely distributed. At the same time, many *Primnoa* species are endemics in the Manchurian Subregion. The sole species of the Cyrthacanthacridini inhabits Middle Asia. But the Desert Locust is able to penetrate through the frontiers of the former USSR. On the contrary, the *Calliptamini* are characteristic forms of the steppe, semi-desert and desert landscapes of the study area. They often dominate in the local orthopteran communities. The *Eyprepocnemidini* are limited to the Saharan-Gobian and Manchurian subregions.

A few tribes of the *Acridinae* (*Acridini*, *Truxalini*, *Ochrilidini*, *Phlaeobini*, *Acrotylini*) are chiefly connected with the Saharan-Gobian Subregion and occur, as a rule, in local azonal landscapes. The *Chrysochraontini* are limited by the Holarctic boundaries. They include short-winged species. Some of them are widely distributed. But most Palaearctic species are endemic in the Far East. The distribution of the *Hypernephiini* is very interesting. These short-winged forms inhabit mainly the arid mountains of East Kazakhstan and Mongolia. Some genera are limited to the mountains of Tien Shan, Zagros, the East Himalayas and Hengduanshan. The *Arcypterini* and *Gomphocerini* are distributed all over the Holarctic area. They include both widely distributed forms of plains and highly localized montane species. The *Dociostaurini* are connected with the arid areas of the Scythian and Saharan-Gobian subregions. Some of them are provincial endemics.

Most species of the mainly tropical and subtropical *Epacromiini*, *Locustini*, *Oedipodini*, and *Trilophidiini* are limited to the southern part of study area. The mecostethine grasshoppers are associated with the forest and steppe zones of the Holarctic. The *Bryodemini* and *Sphingonotini* consist of terricolous grasshoppers, which occupy mainly the Saharan-Gobian Subregion. But the former is chiefly limited to Central Asia proper

(it should be emphasized that the North American genera *Trimerotropis* and *Circotettix* do not belong to this tribe). The latter is widely distributed throughout the arid regions of the world.

On the whole, it is evident that the pattern of distribution results from the interaction of both the present natural (geographical, ecological, climatic etc.) conditions and the evolutionary history of the spread of species. Generally speaking, the *Orthoptera* distribution in North and Middle Asia reflects the southern thermophilic character of this group as well as the connection of most its species with grassland and arid ecosystems.

The majority of higher taxa consist of tropical and subtropical groups. Only a few subfamilies (*Deracanthinae*, *Glyphonotinae*, *Onconotinae*, *Thrinchinae*, *Pamphaginae*) and tribes (*Odonturini*, *Drymadusini*, *Gampsocleidini*, *Uvaroviini*, *Egnatiini*, *Conophymatini*, *Chrysochraontini* etc.) are mainly connected with the Palaearctic Region, but almost all the taxa have their centres of diversity and endemism in the southern part of that area. Some of them are associated with local mountains.

An analysis of the distribution of the centres of diversity and generic endemism carried out for each tribe allows us to understand the pattern, which reflects the general situation described above on the Earth's surface. Most centres of tribal diversity and generic endemism are connected with 4 areas of North and Middle Asia:

I – the deserts of Turan (*Drymadusini*, *Diexini*, *Dociostaurini* etc.; endemic – *Grylliscus*);

II – the arid part of Mongolia and China (*Deracanthini*, *Drymadusini*, *Gomphocerini*, *Bryodemini* etc.; endemics – *Bienkoxenus*, *Eulithoxenus*, *Pseudotmethis*, *Sinotmethis* etc.);

III – the nemoral regions near the boundary of North and East Asia (*Meconematinae*, *Drymadusini*, *Gampsocleidini*, *Podismini* etc.; endemics – *Uvarovites*, *Nigrogryllus*, *Clinotettix* etc.);

IV – the mountains of Tien Shan, Pamiro-Allay, and the Hindu-Kush in Afghanistan (*Gomphomastacinae*, *Drymadusini*, *Platycleidini*, *Egnatiini*, *Conophymatini*, *Hypernephiini*, *Dociostaurini* etc.; endemics – *Ferganusa*, *Squamiana*, *Melanotmethis*, *Mizonocara* etc.). And so the distribution of the centres of diversity and endemism corresponds in outline to the general distribution of the *Orthoptera*.

The centres of generic diversity and species endemism are distributed similarly. But the degree of differentiation is higher. The significant barriers are observed in the steppe zone. This differentiation rises from north to south. There are many locally endemic species in the mountains, especially in Middle Asia. The main centres of endemism are connected with outlying ridges separated by the deep valleys: Gissar, Zaravshan, Turkestan, Kopetdag, Dzungarian Alatau. As a rule, the combination of the centres of diversity and the centers of endemism is generally observed. But in the plain or and the northern parts of North and Middle Asia the centres of diversity may be found independently of the corresponding centres of endemism (e.g. *Chorthippus*). On the contrary, we can observe specific centres of endemism unaccompanied by the corresponding diversity centres in isolated parts of the Earth's surface (e. g. islands).

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REFERENCES

EMELJANOV A. F 1974. Proposals on the classification and nomenclature of areas. Entomol. Obozr., **53**: 497- 552.

SERGEEV M. G. 1986. Patterns of *Orthoptera* distribution in North Asia. Nauka, Novosibirsk, 237 pp.

SERGEEV M. G. 1988. Regularities of *Orthoptera* distribution in the mountains of the Middle Asia. Zool. Zh., **67**: 530-538.

SERGEEV M. G. 1991. Distribution patterns of *Orthoptera* in the Asian part of the USSR. Thesis of doct. diss. Sanct-Petersburg. 37 pp.

SERGEEV M. G. 1992. Distribution patterns of *Orthoptera* in North and Central Asia. J. Orth. Res., **1**: 14-24.

SERGEEV M. G. 1993. Biogeography of Holarctic *Orthoptera*: faunas, populations, communities. Metaleptea, **14**(2): 11.

UVAROV B. P. 1921. The geographical distribution of orthopterous insects in the Caucasus and in Western Asia. Proc. Zool. Soc. London, **31**: 447-472.